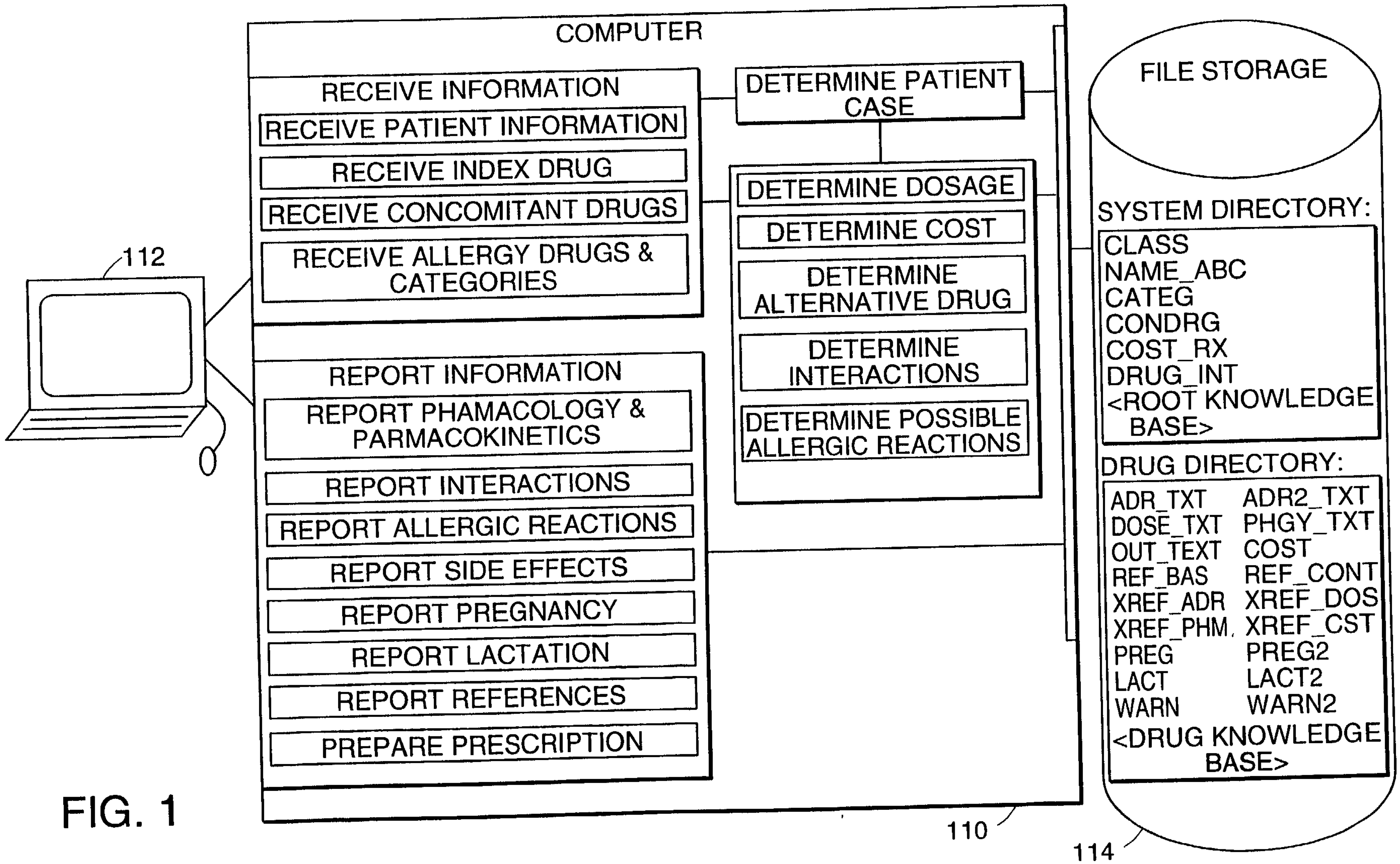


COMPUTER
RECEIVE INFORMATION
RECEIVE PATIENT INFORMATION
RECEIVE INDEX DRUG
RECEIVE CONCOMITANT DRUGS
RECEIVE ALLERGY DRUGS & CATEGORIES
REPORT INFORMATION
REPORT PHAMACOLOGY & PARMACOKINETICS
REPORT INTERACTIONS
REPORT ALLERGIC REACTIONS
REPORT SIDE EFFECTS
REPORT PREGNANCY
REPORT LACTATION
REPORT REFERENCES
PREPARE PRESCRIPTION
DETERMINE PATIENT CASE
DETERMINE DOSAGE
DETERMINE COST
DETERMINE ALTERNATIVE DRUG
DETERMINE INTERACTIONS
DETERMINE POSSIBLE ALLERGIC REACTIONS
FILE STORAGE
SYSTEM DIRECTORY:
CLASS
NAME_ABC
CATEG
CONDRG
COST_RX
DRUG_INT
<ROOT KNOWLEDGE BASE>
DRUG DIRECTORY:
ADR_TXT ADR2_TXT
DOSE_TXT PHGY_TXT
OUT_TEXT COST
REF_BAS REF_CONT
XREF_ADR XREF_DOS
XREF_PHM XREF_CST
PREG PREG2
LACT LACT2
WARN WARN2
<DRUG KNOWLEDGE BASE>
112
110
114

FIG. 1

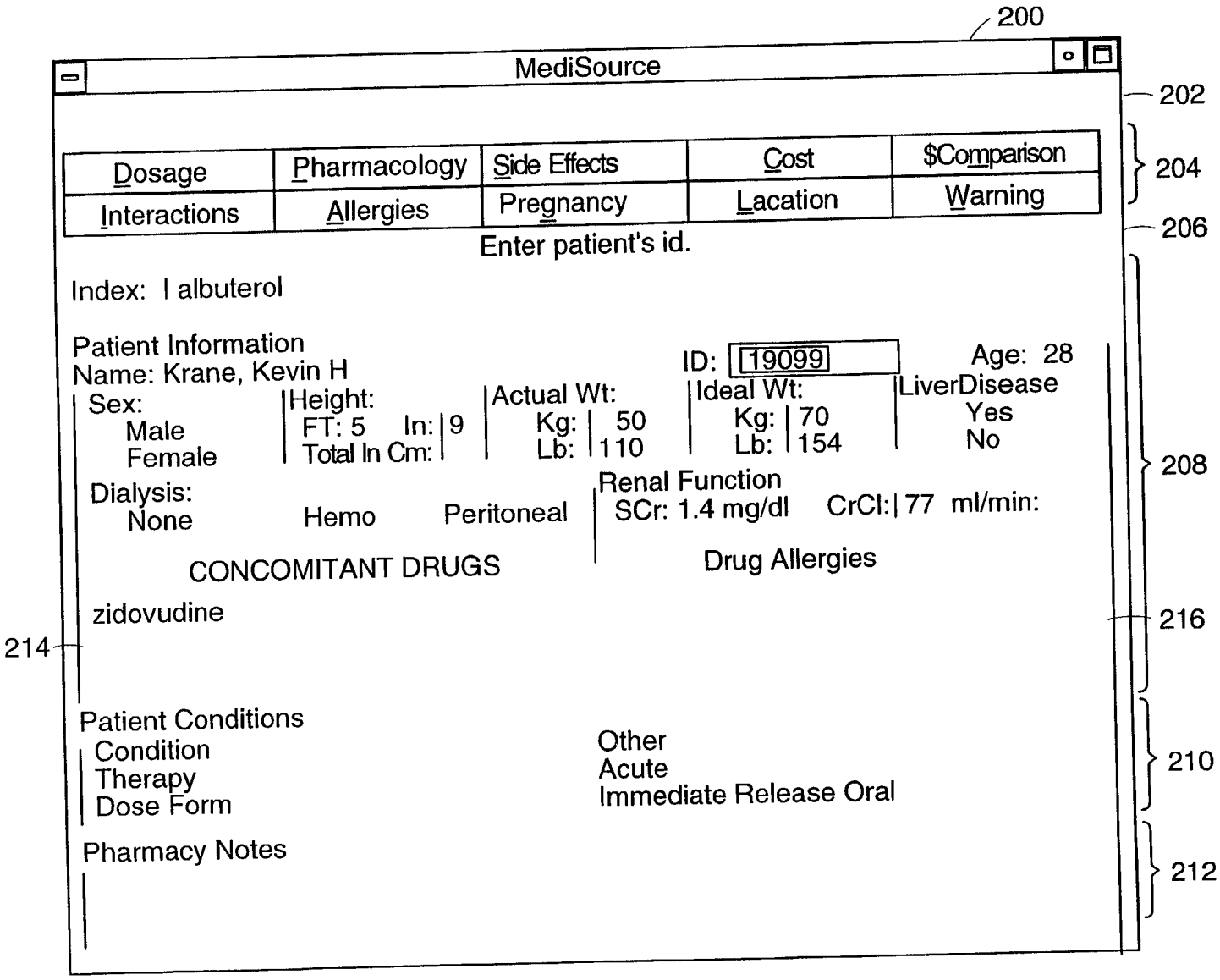

200
MediSource
202
Dosage
Pharmacology
Side Effects
Cost
$Comparison
Interactions
Allergies
Pregnancy
Lacation
Warning
204
206
Enter patient's id.
Index: I albuterol
Patient Information
Name: Krane, Kevin H
ID: 19099
Age: 28
Sex:
Male
Female
Height:
FT: 5 In: 9
Total In Cm:
Actual Wt:
Kg: 50
Lb: 110
Ideal Wt:
Kg: 70
Lb: 154
LiverDisease
Yes
No
208
Dialysis:
None
Hemo
Peritoneal
Renal Function
SCr: 1.4 mg/dl
CrCl: 77 ml/min:
CONCOMITANT DRUGS
Drug Allergies
zidovudine
214
216
Patient Conditions
Condition
Therapy
Dose Form
Other
Acute
Immediate Release Oral
210
Pharmacy Notes
212

FIG. 2

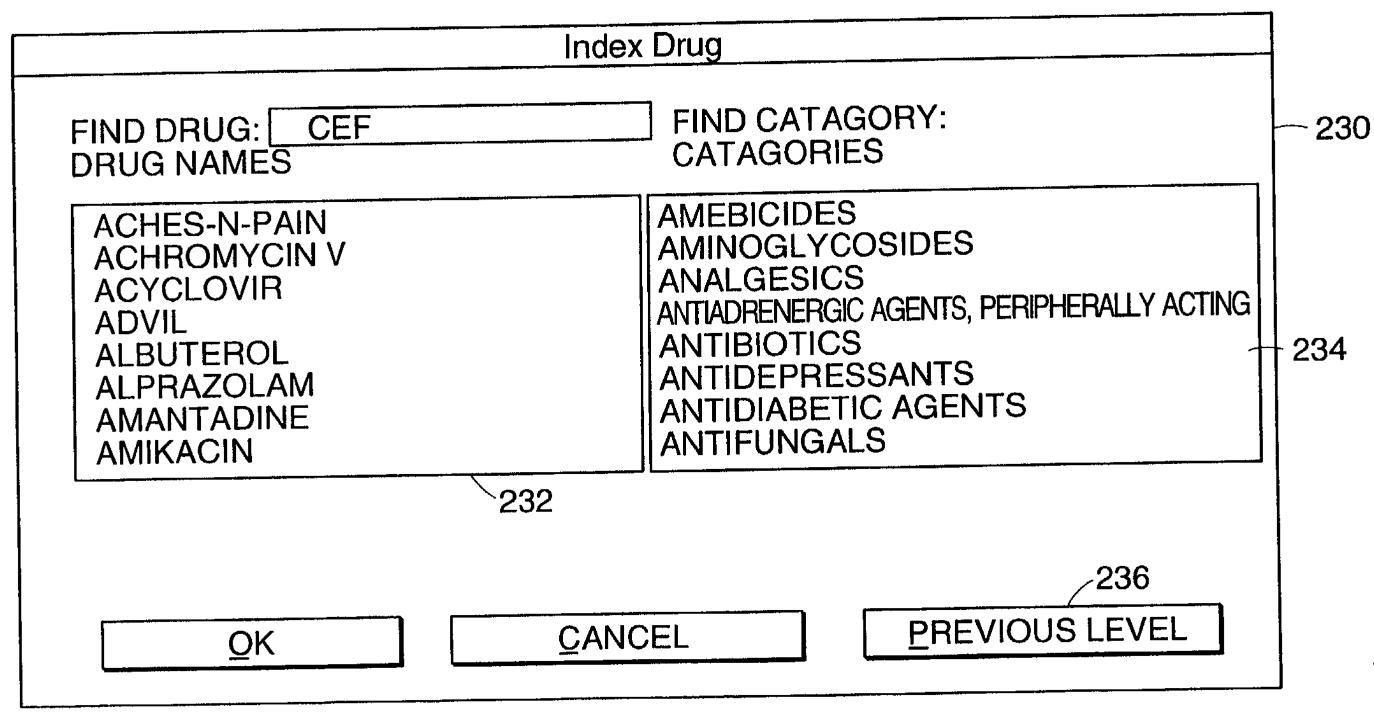

Index Drug
FIND DRUG: CEF
DRUG NAMES
ACHES-N-PAIN
ACHROMYCIN V
ACYCLOVIR
ADVIL
ALBUTEROL
ALPRAZOLAM
AMANTADINE
AMIKACIN
FIND CATAGORY:
CATAGORIES
AMEBICIDES
AMINOGLYCOSIDES
ANALGESICS
ANTIADRENERGIC AGENTS, PERIPHERALLY ACTING
ANTIBIOTICS
ANTIDEPRESSANTS
ANTIDIABETIC AGENTS
ANTIFUNGALS
OK
CANCEL
PREVIOUS LEVEL
230
232
234
236

FIG. 3

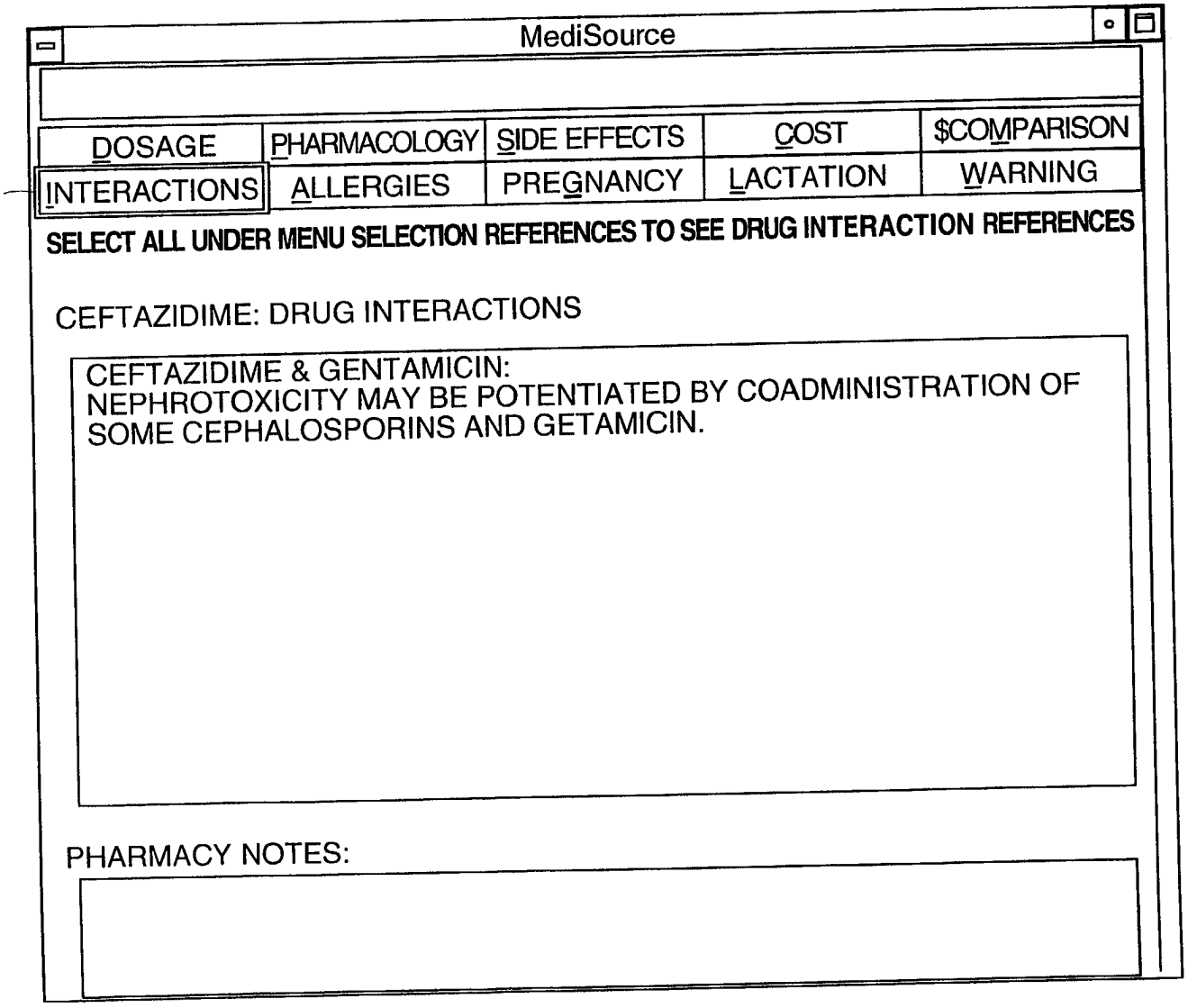

MediSource
DOSAGE
PHARMACOLOGY
SIDE EFFECTS
COST
$COMPARISON
240
INTERACTIONS
ALLERGIES
PREGNANCY
LACTATION
WARNING
SELECT ALL UNDER MENU SELECTION REFERENCES TO SEE DRUG INTERACTION REFERENCES
CEFTAZIDIME: DRUG INTERACTIONS
CEFTAZIDIME & GENTAMICIN:
NEPHROTOXICITY MAY BE POTENTIATED BY COADMINISTRATION OF SOME CEPHALOSPORINS AND GETAMICIN.
PHARMACY NOTES:

FIG. 4

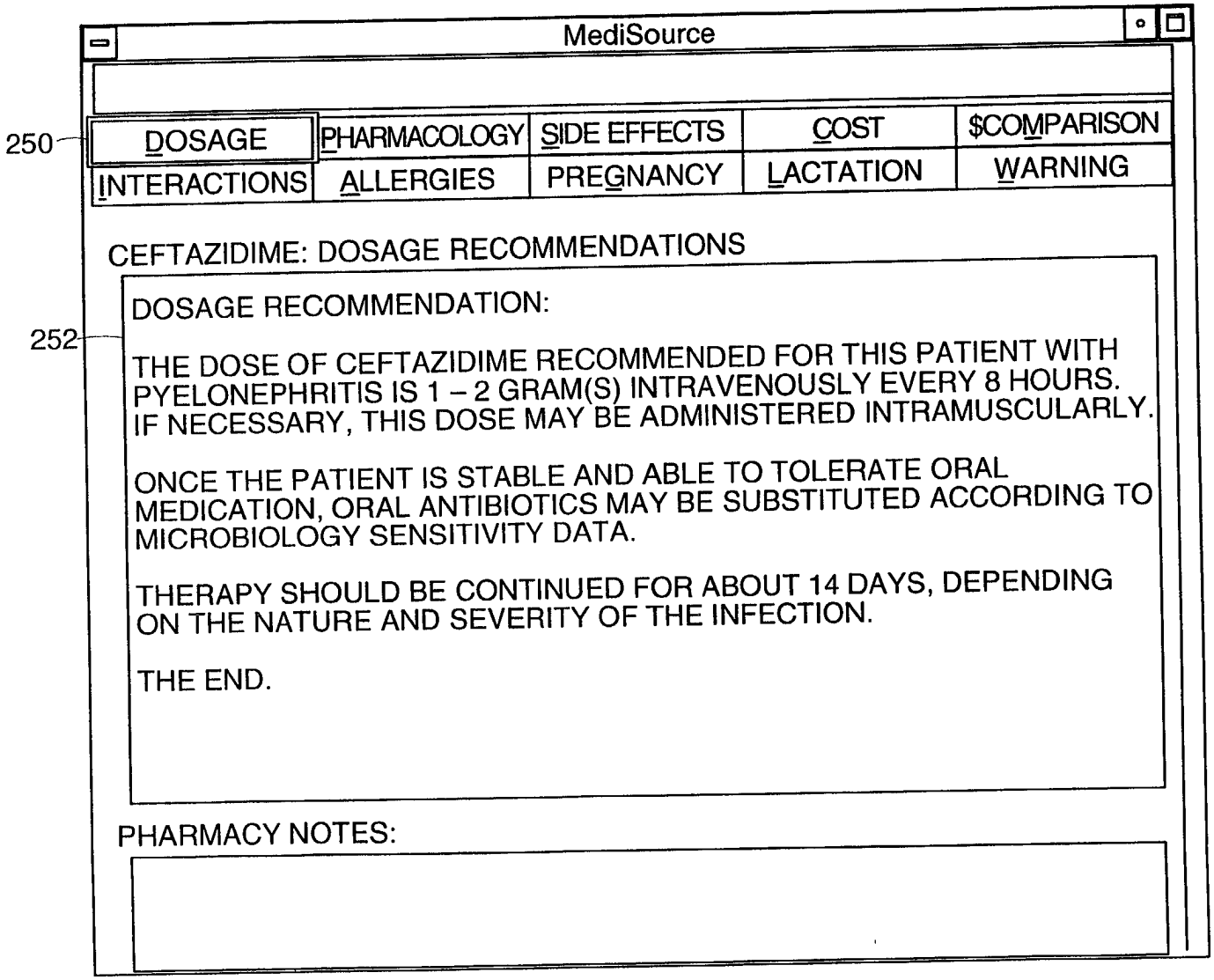

MediSource
250
DOSAGE
PHARMACOLOGY
SIDE EFFECTS
COST
$COMPARISON
INTERACTIONS
ALLERGIES
PREGNANCY
LACTATION
WARNING
CEFTAZIDIME: DOSAGE RECOMMENDATIONS
252
DOSAGE RECOMMENDATION:
THE DOSE OF CEFTAZIDIME RECOMMENDED FOR THIS PATIENT WITH PYELONEPHRITIS IS 1 – 2 GRAM(S) INTRAVENOUSLY EVERY 8 HOURS. IF NECESSARY, THIS DOSE MAY BE ADMINISTERED INTRAMUSCULARLY.
ONCE THE PATIENT IS STABLE AND ABLE TO TOLERATE ORAL MEDICATION, ORAL ANTIBIOTICS MAY BE SUBSTITUTED ACCORDING TO MICROBIOLOGY SENSITIVITY DATA.
THERAPY SHOULD BE CONTINUED FOR ABOUT 14 DAYS, DEPENDING ON THE NATURE AND SEVERITY OF THE INFECTION.
THE END.
PHARMACY NOTES:

FIG. 5

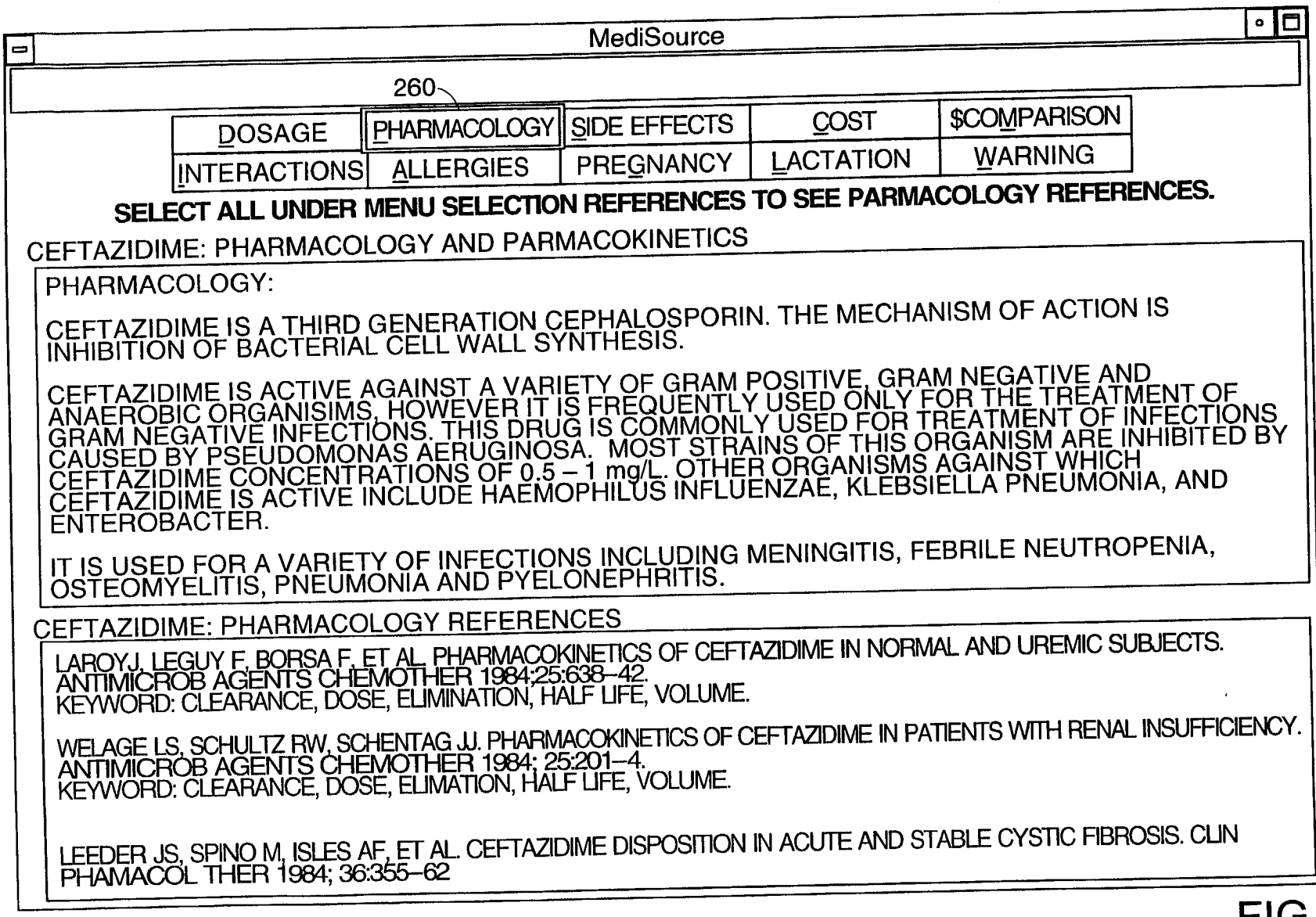

MediSource
260
DOSAGE
PHARMACOLOGY
SIDE EFFECTS
COST
$COMPARISON
INTERACTIONS
ALLERGIES
PREGNANCY
LACTATION
WARNING
SELECT ALL UNDER MENU SELECTION REFERENCES TO SEE PARMACOLOGY REFERENCES.
CEFTAZIDIME: PHARMACOLOGY AND PARMACOKINETICS
PHARMACOLOGY:
CEFTAZIDIME IS A THIRD GENERATION CEPHALOSPORIN. THE MECHANISM OF ACTION IS INHIBITION OF BACTERIAL CELL WALL SYNTHESIS.
CEFTAZIDIME IS ACTIVE AGAINST A VARIETY OF GRAM POSITIVE, GRAM NEGATIVE AND ANAEROBIC ORGANISIMS, HOWEVER IT IS FREQUENTLY USED ONLY FOR THE TREATMENT OF GRAM NEGATIVE INFECTIONS. THIS DRUG IS COMMONLY USED FOR TREATMENT OF INFECTIONS CAUSED BY PSEUDOMONAS AERUGINOSA. MOST STRAINS OF THIS ORGANISM ARE INHIBITED BY CEFTAZIDIME CONCENTRATIONS OF 0.5 – 1 mg/L. OTHER ORGANISMS AGAINST WHICH CEFTAZIDIME IS ACTIVE INCLUDE HAEMOPHILUS INFLUENZAE, KLEBSIELLA PNEUMONIA, AND ENTEROBACTER.
IT IS USED FOR A VARIETY OF INFECTIONS INCLUDING MENINGITIS, FEBRILE NEUTROPENIA, OSTEOMYELITIS, PNEUMONIA AND PYELONEPHRITIS.
262
CEFTAZIDIME: PHARMACOLOGY REFERENCES
LAROYJ, LEGUY F, BORSA F, ET AL. PHARMACOKINETICS OF CEFTAZIDIME IN NORMAL AND UREMIC SUBJECTS. ANTIMICROB AGENTS CHEMOTHER 1984;25:638–42.
KEYWORD: CLEARANCE, DOSE, ELIMINATION, HALF LIFE, VOLUME.
WELAGE LS, SCHULTZ RW, SCHENTAG JJ. PHARMACOKINETICS OF CEFTAZIDIME IN PATIENTS WITH RENAL INSUFFICIENCY. ANTIMICROB AGENTS CHEMOTHER 1984; 25:201–4.
KEYWORD: CLEARANCE, DOSE, ELIMATION, HALF LIFE, VOLUME.
LEEDER JS, SPINO M, ISLES AF, ET AL. CEFTAZIDIME DISPOSITION IN ACUTE AND STABLE CYSTIC FIBROSIS. CLIN PHAMACOL THER 1984; 36:355–62
264

FIG. 6

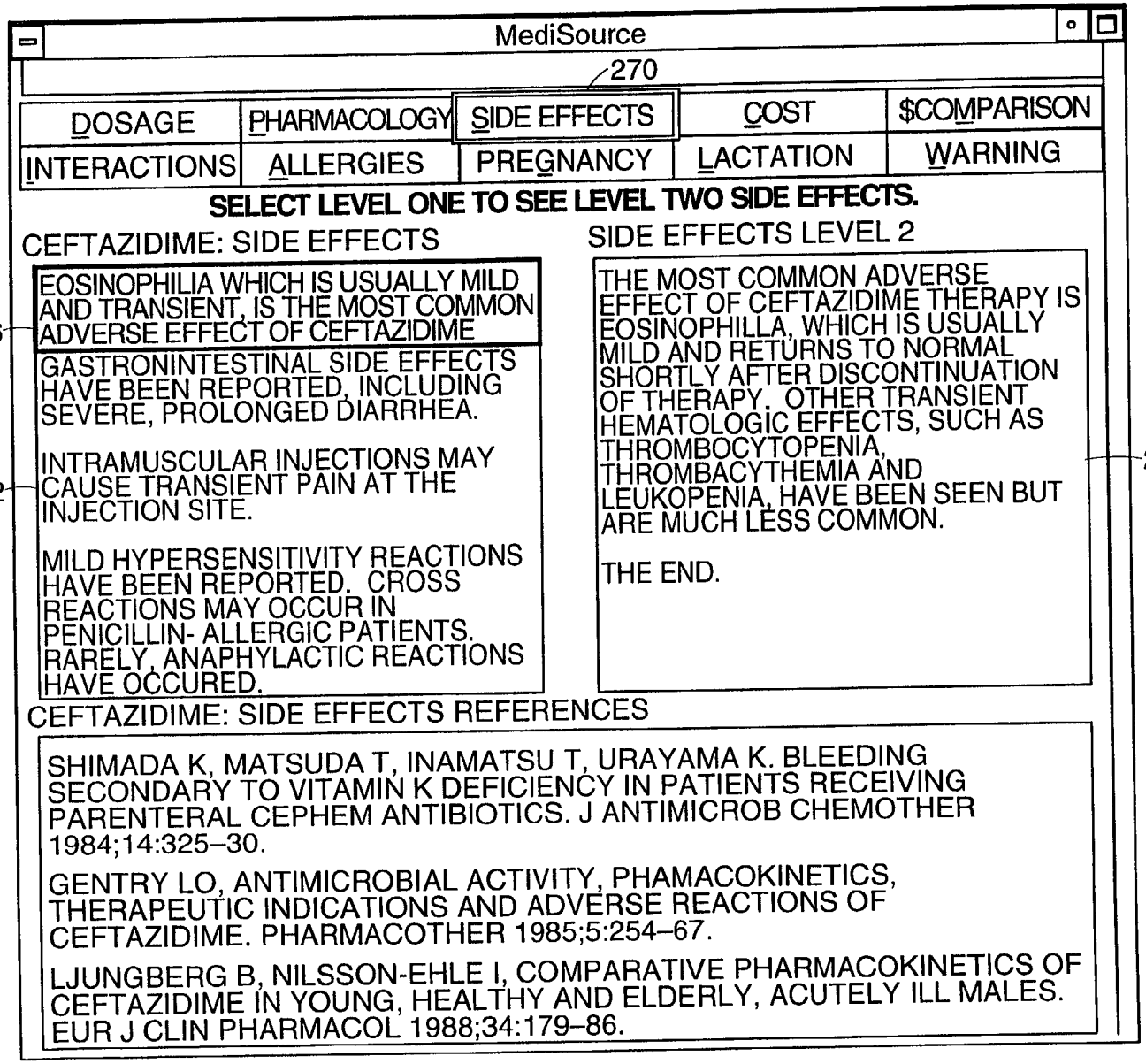

MediSource
270
DOSAGE
PHARMACOLOGY
SIDE EFFECTS
COST
$COMPARISON
INTERACTIONS
ALLERGIES
PREGNANCY
LACTATION
WARNING
SELECT LEVEL ONE TO SEE LEVEL TWO SIDE EFFECTS.
CEFTAZIDIME: SIDE EFFECTS
EOSINOPHILIA WHICH IS USUALLY MILD AND TRANSIENT, IS THE MOST COMMON ADVERSE EFFECT OF CEFTAZIDIME
276
GASTRONINTESTINAL SIDE EFFECTS HAVE BEEN REPORTED, INCLUDING SEVERE, PROLONGED DIARRHEA.
INTRAMUSCULAR INJECTIONS MAY CAUSE TRANSIENT PAIN AT THE INJECTION SITE.
272
MILD HYPERSENSITIVITY REACTIONS HAVE BEEN REPORTED. CROSS REACTIONS MAY OCCUR IN PENICILLIN- ALLERGIC PATIENTS. RARELY, ANAPHYLACTIC REACTIONS HAVE OCCURED.
SIDE EFFECTS LEVEL 2
THE MOST COMMON ADVERSE EFFECT OF CEFTAZIDIME THERAPY IS EOSINOPHILLA, WHICH IS USUALLY MILD AND RETURNS TO NORMAL SHORTLY AFTER DISCONTINUATION OF THERAPY. OTHER TRANSIENT HEMATOLOGIC EFFECTS, SUCH AS THROMBOCYTOPENIA, THROMBACYTHEMIA AND LEUKOPENIA, HAVE BEEN SEEN BUT ARE MUCH LESS COMMON.
274
THE END.
CEFTAZIDIME: SIDE EFFECTS REFERENCES
SHIMADA K, MATSUDA T, INAMATSU T, URAYAMA K. BLEEDING SECONDARY TO VITAMIN K DEFICIENCY IN PATIENTS RECEIVING PARENTERAL CEPHEM ANTIBIOTICS. J ANTIMICROB CHEMOTHER 1984;14:325–30.
GENTRY LO, ANTIMICROBIAL ACTIVITY, PHAMACOKINETICS, THERAPEUTIC INDICATIONS AND ADVERSE REACTIONS OF CEFTAZIDIME. PHARMACOTHER 1985;5:254–67.
LJUNGBERG B, NILSSON-EHLE I, COMPARATIVE PHARMACOKINETICS OF CEFTAZIDIME IN YOUNG, HEALTHY AND ELDERLY, ACUTELY ILL MALES. EUR J CLIN PHARMACOL 1988;34:179–86.

FIG. 7

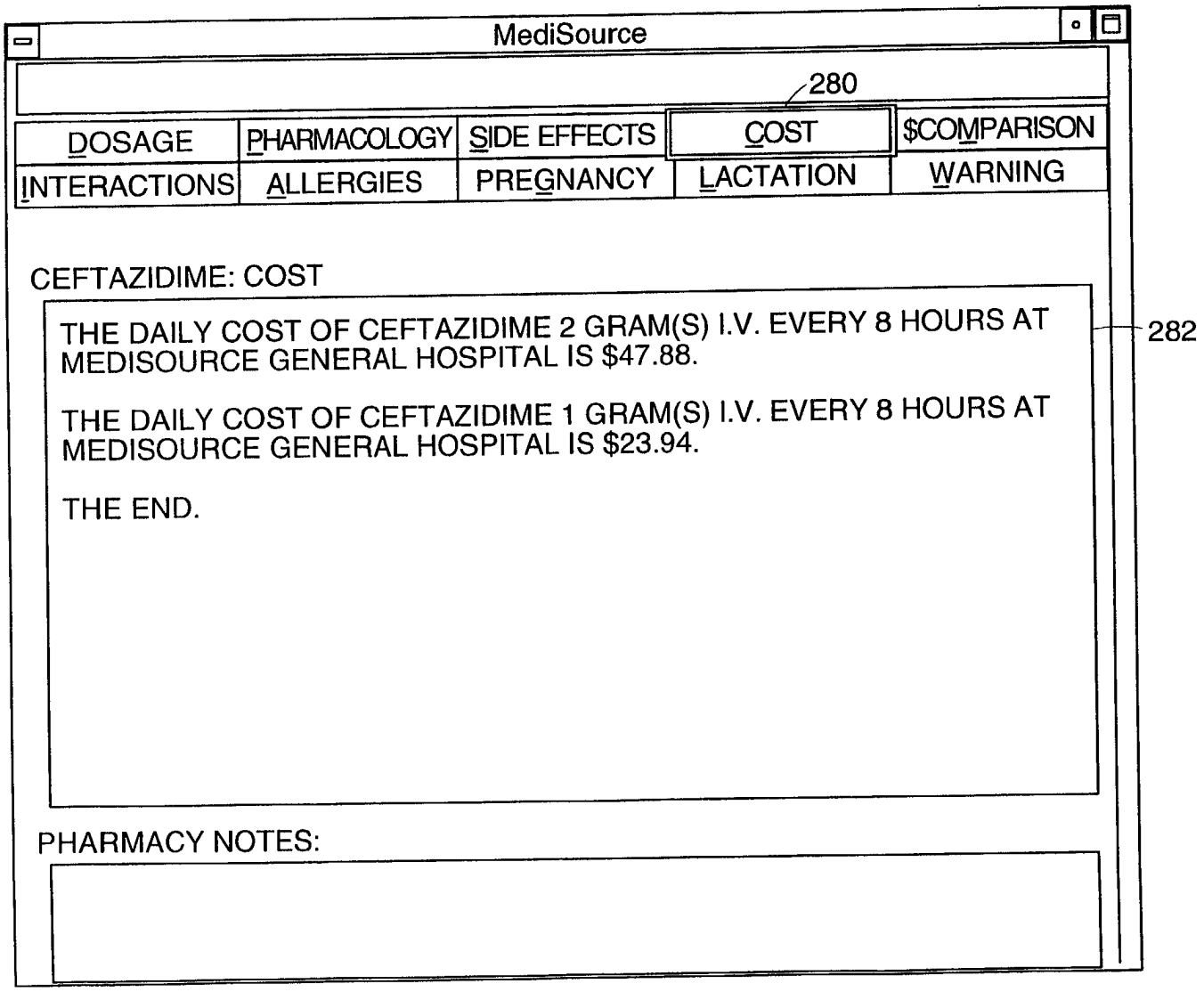
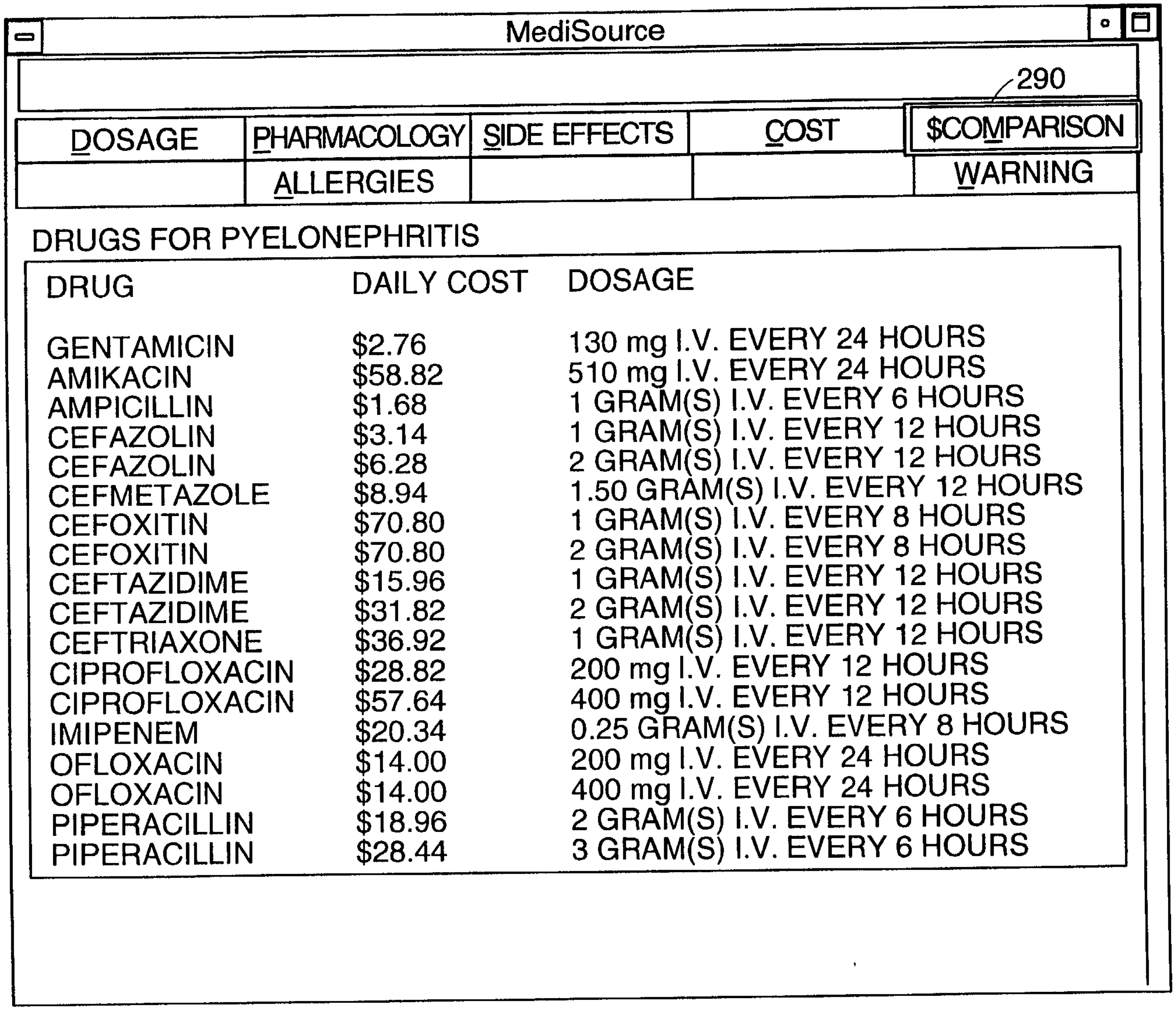

MediSource
280
DOSAGE
PHARMACOLOGY
SIDE EFFECTS
COST
$COMPARISON
INTERACTIONS
ALLERGIES
PREGNANCY
LACTATION
WARNING
CEFTAZIDIME: COST
THE DAILY COST OF CEFTAZIDIME 2 GRAM(S) I.V. EVERY 8 HOURS AT MEDISOURCE GENERAL HOSPITAL IS $47.88.
THE DAILY COST OF CEFTAZIDIME 1 GRAM(S) I.V. EVERY 8 HOURS AT MEDISOURCE GENERAL HOSPITAL IS $23.94.
THE END.
282
PHARMACY NOTES:

FIG. 8



DRUG	DAILY COST	DOSAGE
GENTAMICIN	$2.76	130 mg I.V. EVERY 24 HOURS
AMIKACIN	$58.82	510 mg I.V. EVERY 24 HOURS
AMPICILLIN	$1.68	1 GRAM(S) I.V. EVERY 6 HOURS
CEFAZOLIN	$3.14	1 GRAM(S) I.V. EVERY 12 HOURS
CEFAZOLIN	$6.28	2 GRAM(S) I.V. EVERY 12 HOURS
CEFMETAZOLE	$8.94	1.50 GRAM(S) I.V. EVERY 12 HOURS
CEFOXITIN	$70.80	1 GRAM(S) I.V. EVERY 8 HOURS
CEFOXITIN	$70.80	2 GRAM(S) I.V. EVERY 8 HOURS
CEFTAZIDIME	$15.96	1 GRAM(S) I.V. EVERY 12 HOURS
CEFTAZIDIME	$31.82	2 GRAM(S) I.V. EVERY 12 HOURS
CEFTRIAXONE	$36.92	1 GRAM(S) I.V. EVERY 12 HOURS
CIPROFLOXACIN	$28.82	200 mg I.V. EVERY 12 HOURS
CIPROFLOXACIN	$57.64	400 mg I.V. EVERY 12 HOURS
IMIPENEM	$20.34	0.25 GRAM(S) I.V. EVERY 8 HOURS
OFLOXACIN	$14.00	200 mg I.V. EVERY 24 HOURS
OFLOXACIN	$14.00	400 mg I.V. EVERY 24 HOURS
PIPERACILLIN	$18.96	2 GRAM(S) I.V. EVERY 6 HOURS
PIPERACILLIN	$28.44	3 GRAM(S) I.V. EVERY 6 HOURS

FIG. 9

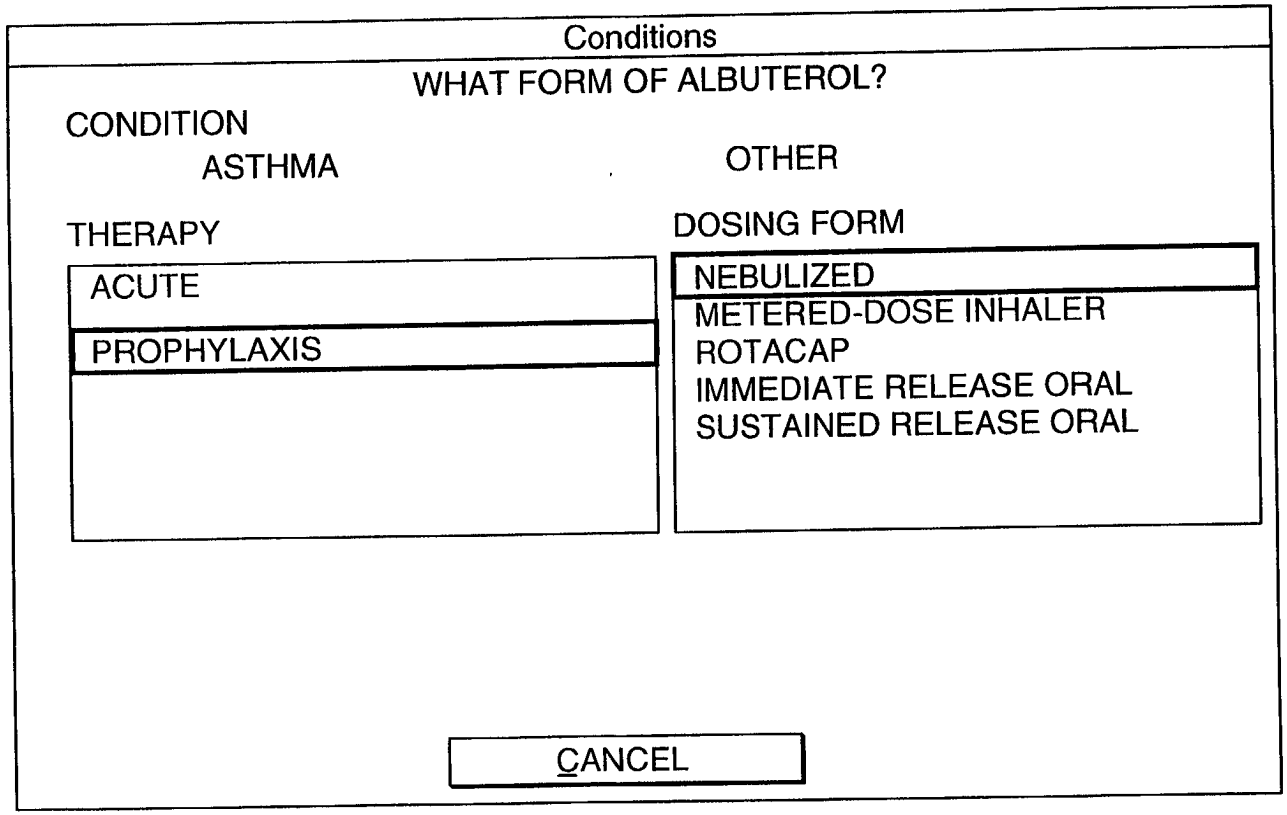

Conditions
WHAT FORM OF ALBUTEROL?
CONDITION
ASTHMA
OTHER
THERAPY
ACUTE
PROPHYLAXIS
DOSING FORM
NEBULIZED
METERED-DOSE INHALER
ROTACAP
IMMEDIATE RELEASE ORAL
SUSTAINED RELEASE ORAL
CANCEL

FIG. 10

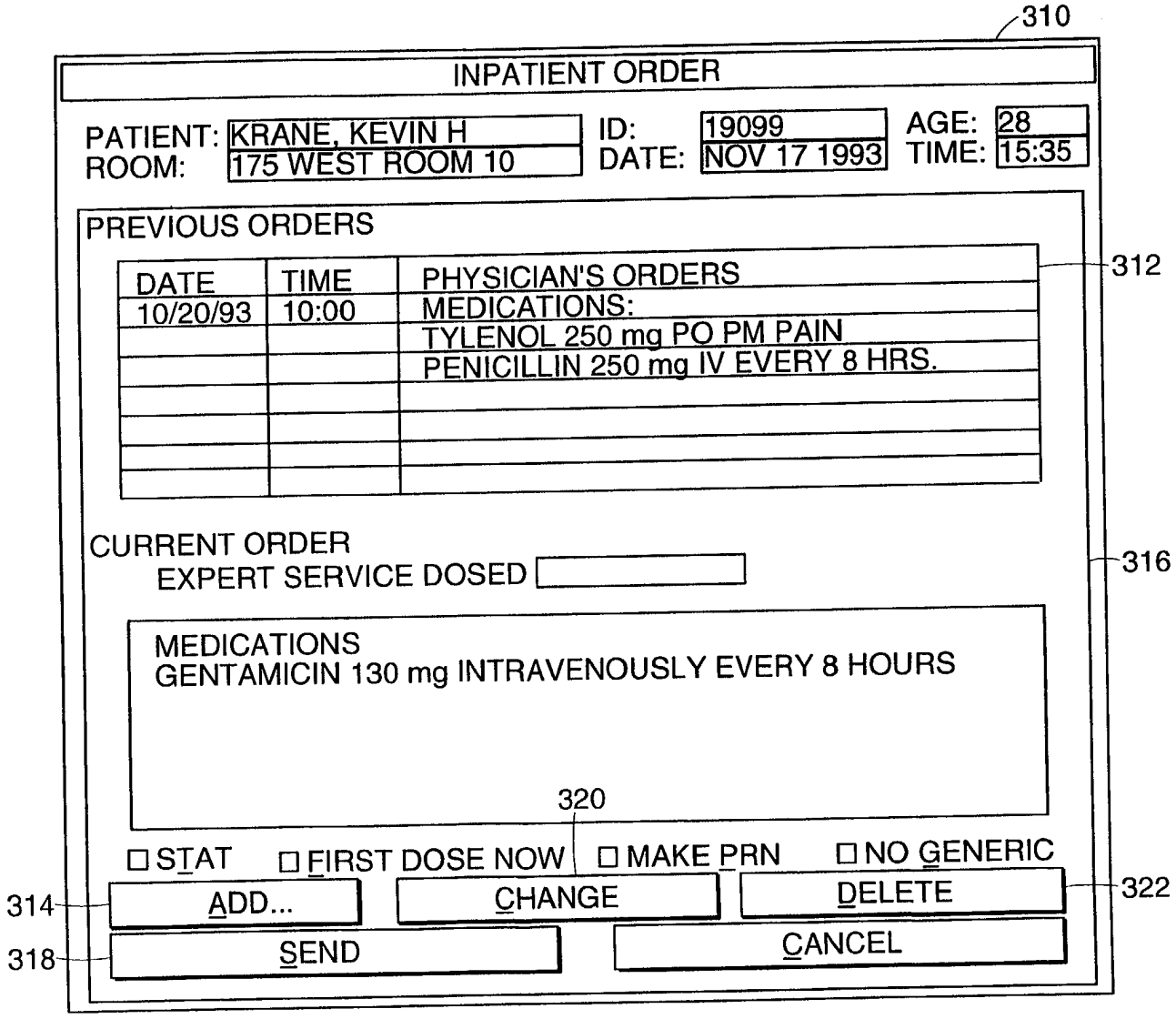

310
INPATIENT ORDER
PATIENT: KRANE, KEVIN H
ROOM: 175 WEST ROOM 10
ID: 19099
DATE: NOV 17 1993
AGE: 28
TIME: 15:35
PREVIOUS ORDERS
DATE
TIME
PHYSICIAN'S ORDERS
10/20/93
10:00
MEDICATIONS:
TYLENOL 250 mg PO PM PAIN
PENICILLIN 250 mg IV EVERY 8 HRS.
312
CURRENT ORDER
EXPERT SERVICE DOSED
316
MEDICATIONS
GENTAMICIN 130 mg INTRAVENOUSLY EVERY 8 HOURS
320
STAT
FIRST DOSE NOW
MAKE PRN
NO GENERIC
314
ADD...
CHANGE
DELETE
322
318
SEND
CANCEL

FIG. 11

ACYCLOVIR TREE

CASE	CONDITION	SUBCONDITION	DOSAGE FORM	DIALYSIS	CrCl	LIVER OX
1	HERPES SIMPLEX	MUCOCUTANEOUS	INTRAVENOUS	NONE	> =80.	NO
2		IMMUNOCOMPRO-				YES
3		MISED HOST			50-79.9.	NO
4						YES
5					25-49.9.	NO
6						YES
7					10-24.9.	NO
8						YES
9					<10	NO
10						YES
11				HEMODIALYSIS		NO
12						YES
13				PERITONEAL		NO
14						YES
15			ORAL	NONE	> =80.	NO
16						YES
17					50-79.9.	NO
18						YES
19					25-49.9.	NO
20						YES
21					10-24.9.	NO
22						YES
23					<10	NO
24						YES
25				HEMODIALYSIS		NO
26						YES
27				PERITONEAL		NO
28						YES
29		MUCOCUTANEOUS	ORAL	NONE	> =80.	NO
30		IMMUNOCOMPE-				YES
31		TENT HOST			50-79.9.	NO
32						YES
33					25-49.9	NO
34						YES
35					10-24.9.	NO
36						YES
37					<10	NO
38						YES
39				HEMODIALYSIS		NO
40						YES
41				PERITONEAL		NO
42						YES
43		PROPHYLAXIS	ORAL	NONE	> =80.	NO
44						YES
45					50-79.9.	NO
46						YES
47					25.49.9	NO
48						YES

FIG. 12

ACYCLOVIR TREE

49					10-24.9.	NO
50						YES
51					<10	NO
52						YES
53				HEMODIALYSIS		NO
54						YES
55				PERITONEAL		NO
56						YES
57	HERPES SIMPLEX		INTRAVENOUS	NONE	> =80.	NO
58	ENCEPHALITIS					YES
59					50-79.9.	NO
60						YES
61					25-49.9.	NO
62						YES
63					10-24.9.	NO
64						YES
65					<10	NO
66						YES
67				HEMODIALYSIS		NO
68						YES
69				PERITONEAL		NO
70						YES
71	VARICELLA-ZOSTER		INTRAVENOUS	NONE	> =80.	NO
72						YES
73					50-79.9.	NO
74						YES
75					25-49.9	NO
76						YES
77					10-24.9.	NO
78						YES
79					<10	NO
80						YES
81				HEMODIALYSIS		NO
82						YES
83				PERITONEAL		NO
84						YES
85			ORAL	NONE	> =80.	NO
86						YES
87					50-79.9.	NO
88						YES
89					25.49.9.	NO
90						YES
91					10-24.9.	NO
92						YES
93					<10	NO
94						YES
95				HEMODIALYSIS		NO
96						YES
97				PERITONEAL		NO

FIG. 13

ACYCLOVIR TREE

98						YES
99	OTHER		INTRAVENOUS	NONE	> =80.	NO
100						YES
101					50-79.9.	NO
102						YES
103					25-49.9.	NO
104						YES
105					10-24.9.	NO
106						YES
107					<10	NO
108						YES
109				HEMODIALYSIS		NO
110						YES
111				PERITONEAL		NO
112						YES
113			ORAL	NONE	> =80.	NO
114						YES
115					50-79.9.	NO
116						YES
117					25-49.9.	NO
118						YES
119					10-24.9.	NO
120						YES
121					<10	NO
122						YES
123				HEMODIALYSIS		NO
124						YES
125				PERITONEAL		NO
126						YES

FIG. 14

ACYCLOVIR- DECISION TREE

ACYCLOVIR IS AVAILABLE FOR PARENTERAL USE, AND AS 200 MG CAPSULES AND 800 mg TABLETS.

TOP LEVEL TEXT

DOSAGE RECOMMENDATION

THE DOSAGE OF ACYCLOVIR RECOMMENDED FOR THIS PATIENT (CONDITION) IS (DOSE) mg (ROUTE) (FREQUENCY). (INTRAVENOUS ADMIN) (SWITCH) (DURATION) (DIALYSIS STATEMENT)

(RENAL FAILURE DOSE)

(SPECIAL STATEMENT)

RESISTANCE TO ACYCLOVIR IS BEING SEEN AMONG ISOLATES OF HERPES SIMPLAX VIRUS AND VARICELLA-ZOSTER VIRUS. THESE ISOLATES WOULD BE EXPECTED TO BE RESISTANT TO GANCICLOVIR AS WELL, BUT MAY BE SUSCEPTIBLE TO VIDARABINE AND FOSCARNET.

PHARMACOLOGY

ACYCLOVIR IS AN ANTIVIRAL AGENT WHICH IS CONVERTED INTRACELLULARLY TO ACTIVE ACYCLOVIR TRIPHOSPHATE. ACYCLOVIR TRIPHOSPHATE INTERFERES WITH VIRAL DNA SYNTHESIS AND INHIBITS VIRAL REPLICATION.

ACYCLOVIR IS USEFUL IN THE TREATMENT OF INFECTIONS DUE TO HERPES SIMPLEX VIRUS AND VARICELLA-ZOSTER VIRUS.

RESISTANCE TO ACYCLOVIR IS BEING SEEN AMONG ISOLATES OF HERPES SIMPLEX VIRUS AND VARICELLA-ZOSTER VIRUS. THESE ISOLATES WOULD BE EXPECTED TO BE RESISTANT TO GANCICLOVIR AS WELL, BUT MAY BE SUSCEPTIBLE TO VIDARABINE AND FOSCARNET.

PHARMACOKINETICS

THE BIOAVAILABILITY OF ACYCLOVIR IS POOR, RANGING FROM 15 TO 30%.

THE PLASMA PROTEIN BINDING OF ACYCLOVIR AVERAGES 15%.

THE VOLUME OF DISTRIBUTION AVERAGES 0.7 L/kg IN PATIENTS WITH NORMAL RENAL AND HEPATIC FUNCTION. (RENAL Vd) (cns PENETRATION)

PLASMA CLEARANCE OF ACYCLOVIR RANGES FROM 3.0 TO 4.7 ml/min/kg IN PATIENTS WITH NORMAL RENAL AND HEPATIC FUNCTION. (RENAL Cl)

FIG. 15

THE ELIMINATION HALF LIFE IN PATIENTS WITH NORMAL RENAL AND HEPATIC FUNCTION RANGES FRO 2 TO 3 HOURS. (RENAL HALF LIFE)

RENAL EXCRETION IS THE MAJOR ROUTE OF ELIMINATION OF ACYCLOVIR WITH 70 TO 80% EXCRETED UNCHANGED VIA GLOMERULAR FILTRATION AND TUBULAR SECRETION.

THE ONLY SIGNIFICANT METABOLITE THAT HAS BEEN ISOLATED IS 9-CARBOXYMETHOXYMETHYLGUANINE WHICH ACCOUNTS FOR 9 TO 14% OF AN ADMINISTERED DOSE AND IS NOT ACTIVE.

(LIVER PKS)

(DIALYSIS PKS)

FILL IN TEXT

* DOSES ARE CALCULATED AS mg/kg AND ROUNDED TO THE NEAREST 25 mg. EG: 10 mg/kg X 73 kg= 730 mg ROUNDED TO 725 mg.

CASE: 71-74

DOSE, 10 TO 12 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 8 HOURS

CASE: 75-76

DOSE: 10 TO 12 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 12 HOURS

CASE: 77-78.

DOSE: 5 TO 6 mg/kg
ROUTE: INTRAVENOUSLY
PREQUENCY: EVERY 12 HOURS

CASE: 79-84

DOSE: 5 TO 6 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 24 HOURS

FIG. 16

CASS: 1-4

DOSE: 5 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 8 HOURS

CASE: 5.6.

DOSE: 5 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 12 HOURS

CASE: 7.8.

DOSE: 5 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 24 HOURS

CASE: 9-14

DOSE: 2.5 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 24 HOURS

CASE: 15-18,29-32.

DOSE: 200
ROUTE: ORALLY
FREQUENCY: FIVE TIMES A DAY

CASE: 19-28,33-42.

CASE:200
ROUTE: ORALLY
FREQUENCY: THREE TIMES A DAY

CASE: 85-88

DOSE: 800
ROUTE: ORALLY
FREQUENCY: FIVE TIMES A DAY

CASE: 89-92.

DOSE: 800
ROUTE: ORALLY
FREQUENCY: EVERY 8 HOURS

FIG. 17

CASE: 93-98

DOSE: 800
ROUTE: ORALLY
FREQUENCY: EVERY 12 HOURS

CASE: 113-116.

DOSE: 200 TO 800
ROUTE: ORALLY
FREQUENCY: FIVE TIMES A DAY

CASE: 117-120.

DOSE: 200 TO 800
ROUTE: ORALLY
FREQUENCY: EVERY 8 HOURS

CASE: 121-126.

DOSE: 200 TO 800
ROUTE: ORALLY
FREQUENCY: EVERY 12 HOURS

CASE: 99-102.

DOSE: 5 mg/kg TO 12 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 8 HOURS

CASE : 103-104.

DOSE: 5 mg/kg TO 12 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 12 HOURS

CASE: 105-106.

DOSE: 2.5 mg/kg TO 6 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 12 HOURS

FIG. 18

CASE: 107-112 -

DOSE: 2.5 mg/kg TO 6 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 24 HOURS

CASE: 43-46

DOSE: 400 mg
ROUTE: ORALLY
FREQUENCY: TWICE DAILY

CASE: 46-56

DOSE: 400 mg
ROUTE: ORALLY
FREQUENCY: ONCE DAILY

CASE: 57-60

DOSE: 12 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 8 HOURS

CASE: 61 -62

DOSE: 12 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 12 HOURS

CASE: 63-64

DOSE: 6 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCV: EVERY 12 HOURS

CASE: 65-70

DOSE: 6 mg/kg
ROUTE: INTRAVENOUSLY
FREQUENCY: EVERY 24 HOURS

FIG. 19

CASE: 1.2.57.58.71.72.99.100.

INTRAVENOUS ADMIN: ACYCLOVIR SHOULD BE ADMINISTERED OVER ONE HOUR AND THE PATIENT SHOULD BE ADEQUATELY HYDRATED TO PREVENT CRYSTALLIZATION OF ACYCLOVIR IN THE RENAL TUBULES.

CASE: 3-14.59-70.73-84.101-112.

INTRAVENOUS ADMIN: ACYCLOVIR SHOULD BE ADMINISTERED OVER ONE HOUR AND THE PATIENT SHOULD BE ADEQUATELY HYDRATED TO PREVENT CRYSTALLIZATION OF ACYCLOVIR IN THE RENAL TUBULES. THIS IS ESPECIALLY IMPORTED IN THIS PATIENT WITH DECREASED RENAL FUNCTION.

CASE: 1-42

CONDITION: WITH A HERPES SIMPLEX INFECTION
DURATION: THERAPY SHOULD BE CONTINUED FOR ABOUT 10 DAYS DEPENDING ON THE NATURE AND SEVERITY OF THE INFECTION.

CASE: 43-56

CONDITION: REQUIRING PROPHYLAXIS AGAINST HERPES SIMPLEX INFECTION

CASE: 57-70

CONDITION: WITH HERPES SIMPLEX ENCEPHALITIS
DURATION: THERAPY SHOULD BE CONTINUED FOR ABOUT 10 DAYS OR LONGER DEPENDING ON THE NATURE AND SEVERITY OF THE INFECTION.
CNS PENETRATION: RATS TREATED WITH ACYCLOVIR, 25 mg/kg GIVEN SUBCUTANEOUSLY, DEMONSTRATED PEAK BRAIN TISSUE CONCENTRATION AT 20 MINUTES TO ONE HOUR WHICH WERE 30% OF CONCURRENT BLOOD CONCENTRATIONS.

CASE: 71-84.

CONDITION: WITH A VARICELLA- ZOSTER INFECTION
DURATION: THERAPY SHOULD BE CONTINUED FOR ABOUT 7 TO 10 DAYS DEPENDING ON THE NATURE AND SEVERITY OF THE INFECTION.

CASE : 99-126

CONDITION: WITH A VIRAL INFECTION
DURATION: THERAPY SHOULD BE CONTINUED FOR ABOUT 10, DEPENDING ON THE NATURE AND SEVERITY OF THE INFECTION.

FIG. 20

CASE: 5-14,19-28, 33-42, 47-56, 61-70, 75-84, 89-98, 103-112, 117-126

RENAL FAILURE DOSE: BECAUSE ACYCLOVIR UNDERGOES RENAL ELIMINATION, THE NORMALLY RECOMMENDED DOSE HAS BEEN ADJUSTED FOR THIS PATIENT'S RENAL DYSFUNCTION.

CASE: ALL EVENS

LIVER pks: THERE ARE NO DATA ON THE PHARMACOKINETIC DISPOSITION OF ACYCLOVIR IN PATIENTS WITH LIVER DISEASE, HOWEVER, LITTLE ALTERACTION WOULD BE EXPECTED.

CASE: ALL EXCEPT 1,2,15,16,29,30,43,44,57-58,71,72,85,86,99,100,113,114

RENAL vd: A SLIGHT BUT SIGNIFICANT DECREASE EXISTS FOR PATIENTS WITH RENAL IMPAIRMENT AVERAGING 0.59 L/kg (ASSUMING 70 kg BODY WEIGHT).

RENAL Cl: IN PATIENTS WITH END STAGE RENAL DISEASE THE PLASMA CLEARANCE DECREASES TO APPROXIMATELY 0.4 ml/min/kg.

RENAL HALF LIFE: IN PATIENTS WITH END STAGE RENAL DISEASE THIS INCREASES TO APPROXIMATELY 20 HOURS.

CASE. 11,12,25,26,39,40,53,54,67,68,81,82,95,96,109,110,123,124

DIALYSIS pks: ACYCLOVIR PLASMA CONCENTRATIONS ARE REDUCED APPROXIMATELY 60% FOLLOWING 6 HOURS OF HEMODIALYSIS. DIALYSIS CLEARANCE MEASURED 82 ml/min AND THE HALF LIFE DECREASED FROM 20 HOURS OFF DIALYSIS TO APPROXIMATELY 6 HOURS WHILE ON DIALYSIS.

DIALYSIS STATEMENT ACYCLOVIR IS DIALYZED BY HEMODIALYSIS. DOSES SHOULD BE SCHEDULED TO FOLLOW DIALYSIS SESSIONS OR SUPPLEMENTAL DOSES EQUIVALENT TO THE MAINTENANCE DOSE SHOULD BE GIVEN.

CASE: 13,14,27,28,41,42,55,56,69,70,83,84,97,98,111,112,125,126

DIALYSIS pks: IN PATIENTS MANAGED WITH CONTINUOUS AMBULATORY PERITONEAL DIALYSIS (CAPD), THE DIALYSIS CLEARANCE RANGES FROM 3.6 TO 4.4 ml/min WITH 10 TO 12% OF A DOSE RECOVERED IN THE DIALYSATE OVER 24 HOURS.

FIG. 21

CASE: 1-14,57-70,71-84,99-112

SWITCH: ONCE THE PATIENT IS STABLE AND ABLE TO TOLERATE ORAL MEDICATIONS ORAL THERAPY MAY BE SUBSTITUTED TO COMPLETE THERAPY.

SPECIAL STATEMENT:

CASE: 57-70
ACYCLOVIR IS MORE EFFECTIVE AND LESS TOXIC THAN VIDARABINE FOR HERPES SIMPLEX VIRUS ENCEPHALITIS.

CASE: 29-42

FOR GENITAL HERPES SIMPLEX VIRUS INFECTIONS, ACYCLOVIR IS EFFECTIVE IN TREATMENT OF PRIMARY INFECTION TO REDUCE DURATION OF PAIN, NEW LESION FORMATION, AND VIRAL SHEDDING, THERE IS ONLY MODEST BENEFIT IN THE TREATMENT OF RECURRENT HERPES SIMPLEX EPISODES WITH SHORTENING OF LESION DURATION BY ONLY 24 TO 48 HOURS.

CASE: 43-56

PROPHYLACTIC TREATMENT WITH ACVCLOVIR IS USEFUL IN IMMUNOCOMPROMISED PATIENTS AND PATIENTS WITH FREQUENT AND SEVERE REOCCURANCES.

CASE: 71-98

VARACELLA-ZOSTER INFECTIONS ARE MORE SERIOUS IN IMMUNOCOMPROMISED HOSTS. FOR PRIMARY VARICELLA-ZOSTER INFECTIONS IN IMMUNOCOMPROMISED HOSTS, TREATMENT WITH INTRAVENOUS ACYCLOVIR REDUCES THE INCIDENCE OF VARICELLA-ZOSTER VIRUS PNEUMONIA. FOR REACTIVATION OF VARICELLA-ZOSTER VIRUS IN IMMUNOCOMPROMISED PATIENTS, ACYCLOVIR DECREASES THE INCIDENCE OF SEVERE PROGRESSION OF DISEASE (VISCERAL OR SEVERE CUTANEOUS DISSEMINATION) WHEN GIVEN INTRAVENOUSLY. IN NORMAL SUBJECTS ORAL ACVCLOVIR DECREASES THE INCIDENCE OF EARLY PAIN BUT NOT THE INCIDENCE OF SEVERE POSTHERPETIC NEURALGIA, AND REDUCES DURATION OF THE RASH. OPHTHALMIC VARICELLA-ZOSTER WARRANTS TREATMENT WITH ACYCLOVIR GIVEN THE ASSOCIATED MORBIDITY.

FIG. 22